

IN THE CLAIMS

1. (Currently Amended) A system for location recognition using IC tags, wherein an interrogator makes a first communication with multiple IC tags existing in a communication area A by radio, and at the same time, one of said multiple IC tags tag makes a second communication with other IC tags existing in a communication area B (<A) by probe signals, the one of said multiple IC tag tags comprising[[;]]:

a first responder that responds with response means for responding own information X to the interrogator[[],];

a transmitter that sends transmission means for sending out said probe signals to the other IC tags when own information X is specified by the interrogator[[],];

a receiver that receives reception means for receiving said a probe signal sent out by one IC tag of the other IC tags whose information Y is specified by the interrogator[[],];

a storage that stores means for storing information Y of the one IC tag of the other IC tags tag specified as a source IC tag by the interrogator in a memory when a reception strength of said probe signal is more than a predetermined level[[],]; and[[],]

a second responder that responds with response means for responding the information Y of the source IC tag stored in the memory to the interrogator according in response to a second readout command,

wherein whereby relative positions of said multiple IC tags are recognized from the information X and the information Y collected via the said interrogator.

2. (Currently Amended) The system for location recognition using IC tags as described

in claim 1, wherein all possible combinations of said the information X and information Y are obtained, and any of the said-combinations having one side of information in common are joined so that locations and arrangement order of said multiple IC tags are specified.

3. (Currently Amended) The system for location recognition using IC tags as described in claim 1, wherein either-one of a radio-wave, magnetism, sound, and light wave, which ~~are all omnidirectional propagation media that become attenuated progressively with distance~~, is used for said the probe signals.

4. (Currently Amended) The system for location recognition using IC tags as described in claim 1, wherein a communication range of said the communication area B is adjusted at different lengths depending on sizes and arrangement of items to which said multiple IC tags are affixed.

5. (Currently Amended) The system for location recognition using IC tags as described in claim 1, wherein responses of said first responder response means and said second responder response means are sent made to all the said multiple IC tags existing in said the communication area A while the interrogator specifies response requirements so as to avoid collisions.

6. (Currently Amended) The system for location recognition using IC tags as described in claim 1, wherein the said-probe signals are transmitted to said multiple all the IC tags existing in said the communication area A while the interrogator specifies response

requirements so as to avoid collisions.

7. (Currently Amended) A method for location recognition using IC tags, wherein an interrogator makes a first communication with multiple IC tags existing in a communication area A by radio, and at the same time, one of said the multiple IC tag tags makes a second communication with other IC tags existing in a communication area B (<A) by probe signals, said the method IC tag comprising[[;]]:

having a first response step in which said the one of the multiple IC tag, tags respond with responds own information X to the interrogator[[,]];

having a transmission step in which said the one of the multiple IC tag, sends out tags transmit the said probe signals to the other IC tags when own information X is specified by the interrogator[[,]];

receiving, by a reception step in which said the one of the multiple IC tags, tag receives said probe signals sent out by one IC tag of the other IC tags whose information Y is specified by the interrogator[[,]];

storing, by a storage step in which said the one of the multiple IC tags, tag stores information Y of the one IC tag of the other IC tags tag specified as a source IC tag by the interrogator in a memory when a reception strength of a said probe signal is more than a predetermined level[[,]]; and

responding, by a second response step in which said the one of the multiple IC tags, tag with responds information Y of the source IC tag stored in the memory to the interrogator in response according to a second readout command,

wherein whereby relative positions of said the multiple IC tags are recognized from the information X and the information Y collected via the said interrogator.

8. (New) The system for location recognition using IC tags as described in claim 1,

wherein the probe signals are omnidirectional propagation media, and

wherein the probe signals become attenuated progressively with distance.

9. (New) The system for location recognition using IC tags as described in claim 3,

wherein the probe signals are omnidirectional propagation media, and

wherein the probe signals become attenuated progressively with distance.